FermiGrid Project Status
April 11, 2005

Keith Chadwick

FermiGrid – Four Equal Elements

FermiGrid Common Grid Services:

- Supporting common Grid services to aid in the development and deployment of Grid computing infrastructure by the supported experiments at FNAL

FermiGrid Stakeholder Bilateral Interoperability:

- Facilitating the shared use of central and experiment controlled computing facilities by supported experiments at FNAL
  - CDF, D0, CMS, GP Farms.

FermiGrid Development of OSG Interfaces for Fermilab:

- Enabling the opportunistic use of FNAL computing resources through Open Science Grid (OSG) interfaces.

FermiGrid Exposure of the Permanent Storage System:

- Enable the opportunistic use of FNAL storage resources (STKEN) through Open Science Grid (OSG) interfaces

FermiGrid – Common Grid Services – Status 1

The hardware to host the FermiGrid Common Grid Services has been delivered and installed.

FermiGrid1 has been configured to point to fngp-osg as its condor master.

VOMS has been installed on FermiGrid2.

GUMS has been installed on FermiGrid3.

Ganglia monitoring has been established on FermiGrid 1,2,3.

FermiGrid 1,2,3 are being backed up using the TiBS system.

FermiGrid – Common Grid Services – 2

fermilab and dzero VOs have been established on FermiGrid2.

- https://fermigrid2.fnal.gov:8443/edg-voms-admin/fermilab
- https://fermigrid2.fnal.gov:8443/edg-voms-admin/dzero

This week the following VOs will be established on FermiGrid2:

- (us)cms, gadu, atlas, sdss

These will be run in parallel and synchronized with the current CMS operated VOMS to ensure no interruption of service.

The following VOs will be created to facilitate migration of the GP Farms:

- ktev, miniboone, minos, numi, auger, ppd_theory, ppd_astro, fermilab_ad, patriot, samgrid, hyperCP.

FermiGrid – Common Grid Services – 3

Steve Timm is researching Issues with IP aliases and Grid Service Certificates in order to allow "service named" IP aliases such as voms.fnal.gov and gums.fnal.gov.

VOMRS should be installed on FermiGrid2 this week (pending RPM availability from Tanya Levshina),

GUMS will be configured with two "default" user mappings:

- 1 to 1 – between all "active" Kerberos accounts and assigned Fermilab wide UIDs.
- Many to 1 – (i.e. the entire VO mapped onto a single UID). This will principally be used in the GP Farms and D0 SAMGrid to maintain the current functionality.

Additional customized mappings will be made available as needed by VOs to perform grid related administration tasks and manage privileges.

FermiGrid – Stakeholder Interoperability

Biweekly FermiGrid stakeholder
meetings are taking place to coordinate
this work.
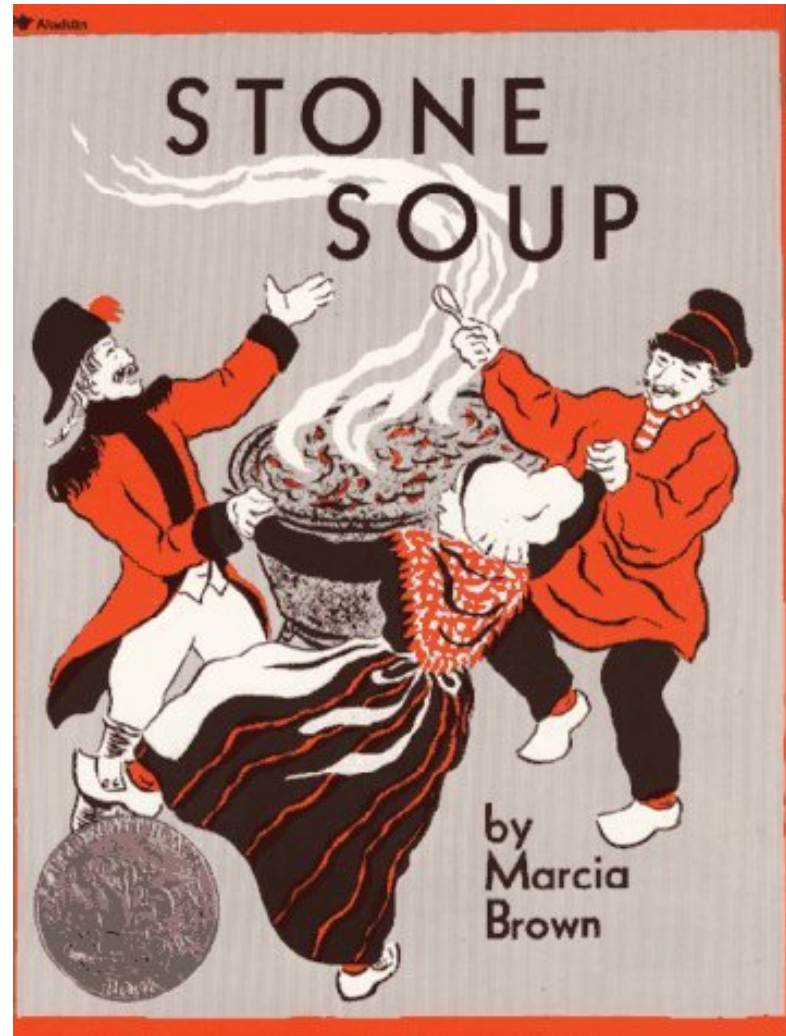
FermiGrid – What is Next ?

Once both VOMS and GUMS are ready, we will configure the Globus Gatekeeper on FermiGrid1.

Integration testing with the GP Farms will take place during April 2005.

Integration with D0 SAMGrid will take place following the GP Farms (??June 2005??).

We have a request submitted to the Fermilab CSEXEC for an extension of the current site security exemption for FermiGrid and LHC clusters.

There is a recognized need to have a centralized location for collection, storage and archival of Fermilab Grid monitoring and accounting information. This will (eventually) be one of the FermiGrid Common Grid Services. There is no current timetable for this work.

FermiGrid – Milestones & Time Line

End Feb 2005:   Hardware installation.

Begin software installation and initial configuration.

March 2005:   Common Grid Services (CGS) available in non-redundant mode (VOMS, GUMS, Condor, etc.).

April 2005:   "Gridify" the GP Farms to work with the FermiGrid CGS and open the GP Farms to the OSG through the Globus Gatekeeper on FermiGrid1.

May 2005:   Work with D0 to transition D0 SamGrid from static gridmap files to use FermiGrid CGS.

June 2005:   Work with other Fermilab resources to integrate them into the FermiGrid CGS.

FermiGrid – Fin

Any questions?